REMARKS

Claims 1-11 are pending. Claims 1, 2, 4-6, 10, and 11 have been amended. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

In the Abstract

The abstract was objected to because of the use of legal phraseology. Applicants have amended the Abstract to correct this informality. No new matter is introduced by these amendments. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

In the Drawings

Figures 4D and 4E were objected to as containing erroneous labels. Applicants have amended Figures 4D and 4E to correct these labels. No new matter is introduced by this amendment since the features were correctly described in the originally filed specification. Accordingly, Applicants respectfully submit that this objection is moot. Upon indication of allowance, Applicants will submit replacement formal drawings for these figures.

Claim Rejections Under 35 U.S.C. § 112

Claims 1 and 4 were rejected under 35 U.S.C. § 112, second paragraph, for lacking proper antecedent basis for features recited in the claims. Applicants have amended claim to correct this error and with respect to claim 4, Applicants submit that the "pointer forwarding" is described in claim 3. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. § 102

A.   Claims 1 and 3 were rejected under 35 U.S.C. § 102(b) over Colmant et al. (U.S. Patent No. 6,144,662). Applicants respectfully traverse this rejection.

Claim 1 recites, in part, a multicasting apparatus that includes an input subqueue reading means for reading out data inputted into an input subqueue, selecting one bit from an output port bitmap at a time, and reading out the input subqueue prior to the completion of all data processing to continuously sustain its output data stream. The apparatus of claim 1 selects one bit at a time to generate a continuous output data stream so that pointers can

be forwarded to the output subqueues with every clock cycle. In contrast, Colmant merely discloses the header contains target information about which of the output ports the packet is supposed to be sent to and that the target information is encoded into the packet header as a number. See, for example, Column 6, lines 28-33. Colmant is silent as to whether one bit is selected at a time. In fact, Colmant actually discloses that a write pointer is incremented byte by byte. See, for example, Column 7, lines 30-40. Accordingly, Colmant actually appears to teach a byte-wise process not a bit-wise process. Accordingly, Colmant fails to teach, or even suggest, a multicasting apparatus that includes an input subqueue reading means for reading out data inputted into an input subqueue, selecting one bit from an output port bitmap at a time, and reading out the input subqueue prior to the completion of all data processing to continuously sustain its output data stream, as recited in claim 1.

Claim 3 is believed allowable for at least the reasons presented above with respect to claim 1 by virtue of its dependence upon claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

B. Claim 5 was rejected under 35 U.S.C. § 102(e) over Uriu et al. (U.S. Patent No. 6,789,176). Applicants respectfully traverse this rejection.

Claim 5 recites, in part, a multicasting method that includes selecting one bit for the data read out of the input subqueue at a time to create a bitmap stream. In contrast, Uriu discloses that the state of registers which are set at steps S11 and S13 are compared and a determination is made as to whether the register match (See, for example, column 6, lines 45-55). Additionally, as disclosed in column 6, lines 25-35., Uriu teaches that a controller reads information for the lines when it receives a notification and that the notification is generated when an entire ATM cell is transmitted. Accordingly, Uriu fails to teach, or even suggest, a multicasting method that includes selecting one bit for the data read out of the input subqueue at a time to create a bitmap stream, as recited in claim 5.

Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

C. Claims 6 and 11 were rejected under 35 U.S.C. § 102(b) over Schnell (U.S. Patent No. 5,923,654). Applicants respectfully traverse this rejection.

Claims 6 and 11 each recite, in part, that the increased value is compared with the final number and if the increased value is less than the final number, the increased value is increased by one; and if the increased value is equal to the final number, the increased

value is set to be zero, thereby allowing the address of the shared memory to be returned to an unused address list. In contrast, Schnell merely discloses that the RPTR and WPTR pointers are cleared to mark that the circular buffer is empty. Schnell does not disclose or teach that the address of the shared memory is returned to an unused address list. In fact, since Schnell relies on the entire buffer to be empty, Schnell does not even identify when a particular address of a shared memory is empty. See, for example, column 19, line 60 – column 20, line 5. Accordingly, Schnell fails to teach, or even suggest, that the increased value is compared with the final number and if the increased value is less than the final number, the increased value is increased by one; and if the increased value is equal to the final number, the increased value is set to be zero, thereby allowing the address of the shared memory to be returned to an unused address list, as recited in claims 6 and 11.

Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. § 103

A.   Claim 4 was rejected under 35 U.S.C. § 103(a) over Colmant in view of Uriu. Applicants respectfully traverse this rejection.

Claim 4 is believed allowable for at least the same reasons presented above with respect to claim 1 by virtue of its dependence upon claim 1 and because Uriu does not remedy the deficiencies of Colmant discussed above. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

B.   Claim 10 was rejected under 35 U.S.C. § 103(a) over Uriu. Applicants respectfully traverse this rejection.

Claim 10 is believed allowable for at least the same reasons presented above with respect to claim 5 because claim 10 recites features that are similar to claim 5 and because, as discussed above with respect to claim 5, Uriu does not teach or suggest these features. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Allowable Subject Matter

Applicants appreciate the Examiner's indication that claims 2 and 7-9 contain allowable subject matter and would be allowable if rewritten in independent form to include all of the features of their base claim and any intervening claims. However, in view of the foregoing, Applicants respectfully submit that all of the claims (claims 1-11) are allowable.
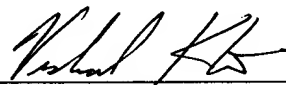
Conclusion

Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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Date: July 12, 2005

In the Drawings:

Figures 4D and 4E have been amended. For the Examiner's convenience, a "Marked-Up" version of Figures 4D and 4E is attached, showing the changes that were made in red ink. Upon indication of allowance, Applicants will submit replacement formal drawings for these figures.